

Contract Line Item Number 0002

INFORMATION TECHNOLOGY
SERVICES IN SUPPORT OF THE
DEPARTMENT OF ENERGY'S (DOE)
OAK RIDGE OPERATIONS (ORO)
ENVIRONMENTAL MANAGEMENT
PROGRAM MANAGED
BY BECHTEL JACOBS COMPANY LLC

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1. PURPOSE

This segment of the PWS describes the scope and requirements of IT services that support DOE's Environmental Management (EM) program managed through DOE Oak Ridge Operations (DOE-ORO) office and provided by the Bechtel Jacobs Company LLC (BJC).

This segment of the PWS describes IT Management Services (ITMS) consisting of the following service areas:

- a) End-user Support Services (ESS)
- b) Server Management Services (SMS)
- c) Miscellaneous IT Services (MIS)
- d) Application and Database Services (ADS)

2. BACKGROUND

BJC became the prime contractor for the DOE-ORO EM work in April 1998. The prime contract originated as a Management and Integration (M&I) arrangement, which emphasized core project management by BJC personnel and task performance by subcontractors for work at the Oak Ridge TN, Paducah, KY, and Portsmouth, OH, sites. The M&I model was intended to leverage best practices from commercial Contractors to meet task and programmatic requirements.

Recently, DOE-ORO issued a separate prime contract to BJC for work performed at the Paducah and Portsmouth sites in preparation for converting the prime contract for work performed at Oak Ridge from an M&I contract to an "Accelerated Clean-up Project" contract with increased emphasis upon completing the environmental remediation tasks by fiscal year end 2008. Therefore, it should be assumed by the Contractor that unless the current DOE/BJC subcontract changes, the work described within this scope of work will end 9/30/08. Because of the dynamic environment inherent in an accelerated cleanup project, it is vital that the scope of work described in this RFP be flexible to the extent that some scope reduction or omissions occur as the work progresses toward closure in 2008.

Additionally, DOE is pursuing a competitive procurement strategy for subsequent award of Infrastructure Services prime contracts at Paducah and Portsmouth. Based upon these conditions, BJC is currently preparing to provide interim IT services to Portsmouth and Paducah at least through completion of the transition phase of the Portsmouth and Paducah Infrastructure Services prime contracts.

BJC is a dispersed functional/project based organization. The BJC Information Technology Organization (BJC IT) is currently responsible for the management of all information technology work for DOE/EM/BJC across the Oak Ridge, Portsmouth, and Paducah prime contracts.

See the following Appendices for additional details regarding BJC Corporate Background and DOE/EM/BJC Current Services Environments:

[Appendix B-1 – BJC Corporate Background](#)
[Appendix B-2 – Oak Ridge Current Environment](#)

3. SCOPE OF WORK

3.1 Overview

IT Management Services (ITMS) is comprised of End-user Support Services (ESS), Server Management Services (SMS), Application and Database Services (ADS), and Miscellaneous IT Services (MIS) described below. The service model must provide alignment of services with accelerated cleanup (ACP) and provide the flexibility to meet the distinct goals and schedules of the projects.

These services are to be provided across the following Oak Ridge locations where there is a DOE/EM/BJC presence:

- a) East Tennessee Technology Park (ETTP)
- b) Union Valley offices
- c) Melton Valley offices
- d) Commerce Park offices
- e) Oak Ridge National Lab (ORNL)
- f) Y-12 National Security Complex (NSC)

The following estimated quantities are provided as a general indicator of the items to be supported. These levels will fluctuate and will ultimately decline to zero as the DOE/EM/BJC Accelerated Clean-up Project is completed.

Table 1.0 Oak Ridge Quantities

Item	Oak Ridge
End User Identifiers*	2305
End User "Desktops"	1810
Networked Printers	298
E-mail Accounts	1650
Servers	160
Applications	136

* three character alpha-numeric unique user identifier assigned to each user requiring log-in access to computing resources.

End-User Support Services (ESS) - This area includes the following support services for end users as authorized by BJC IT:

- Software support (includes end user help with set-up, usage tips, adjustments/settings for operating system, office suite, utility/productivity packages)
- Hardware support **excluding** physical maintenance and moves (includes end user help with set-up, usage tips, adjustments/settings for graphical display, input devices, CPU/Terminal)
- E-mail service support

- Data Storage/File Share service support
- Printed Output capability support
- Request Support service (End User Help and coordination with maintenance services)
- Resources Delivery service (user identifier, password selection/distribution, base accounts, configuration assessment, but excluding physical maintenance and moves)
- Management and Technical Support as applicable

Server Management Services (SMS) - This area includes the following support services relevant to server management for business applications and desktop/network servers:

- Daily operation and non-physical maintenance of servers including server room operations
- Management of additional upgrade/update of technology and operational deployment to meet processing requirements for computing support – may be driven by either business or technical reasons
- Management and Technical Support as applicable

Applications and Database Services (ADS) - This area includes the following support services relevant to application software and database administration services in support of DOE/EM/BJC business functions and projects.

- Application Software Services – includes support services for:
 - 1) Management of designated DOE/EM/BJC software applications across the full life cycle activities of: planning, software quality assurance, project management, feasibility studies, requirements analysis, functional design, technical design, programming, package acquisition, testing, deployment, configuration management, maintenance, operations and retirement
 - 2) IT Project Management Consultation
 - 3) Full Life Cycle Software Engineering and Methodology Consultation.
 - 4) Software Quality Assurance support and compliance for all applications
 - 5) Requirements definition, Cost-Benefit Analysis and Solution recommendations
 - 6) Application support for all organizations (for example: Human Resources; Chief Financial Officer; Engineering; Waste Operations; Project Controls; Environmental Safety and Health and similar organizations)
 - 7) Web Applications - Support and implementation for Internet or Intranet and Web Interfaces to databases and applications
 - 8) Management of packaged software implementation and integration, such as with Commercial Off-The-Shelf (COTS) Applications. Requires experience with Cyborg, Visual Source Safe, P3, Oracle Financials, Documentum, among others

- 9) Language Skills for: COBOL, C, C++, SQL, HTML, Java, SAS, PL/SQL, VB.NET, FoxPro, Visual Basic, Access 97 and 2000, Powerbuilder, Oracle Developer, ColdFusion, ASP, Excel, CGI, PERL, and UNIX scripts, among others
 - 10) DBMS Skills for: Oracle7, Oracle 8, Oracle9, Oracle10i, Oracle Enterprise Manager (OEM), DB2, MS-SQL Server, among others
- Database Administration (DBA) Services - includes support services for:
 - 1) Management of designated DOE/EM/BJC database assets in support of software applications
 - 2) “On-call” DBA support services - 24 hours a day/7 days a week
 - 3) Design, installation, implementation, and system management support for products such as Oracle, Oracle Application Server, SQL-Server, SAS, and administration of commercial database software packages
 - 4) Automated Management/Distribution of computer accounts and passwords at the server level
 - 5) Software Quality Assurance (SQA) support and compliance for all database activities
 - 6) Web Content and Portal Management – Support of content planning, creation and organization of content, providing easy accessibility (e.g., via index and search capability) to relevant and current information
 - 7) Database (primarily Oracle) upgrades and patches, general guidance with database related questions and issues

Miscellaneous IT Services (MIS) - This area includes the following support services relevant to various IT services that do not readily fit within the ESS, SMS, and ADS areas.

- Enterprise Engineering and Subject Matter Expert Services
- Company Level Information Management Support
- IT Operations Management support
- Unclassified Cyber Security support
- Telecommunications Services

3.2 Task Descriptions

3.2.1 End-User Support Services (ESS)

3.2.1.1 Introduction

The main objectives of ESS are delivery of capabilities and meeting performance requirements at the end user level such that “Each end-user receives the mix of services and service levels that enable task performance.” The following sections provide additional information regarding the ESS environment.

3.2.1.2 Current Environment

See [Appendix B-2 Oak Ridge Current Environment](#)

3.2.1.3 Services

3.2.1.3.1 General Services

The following general requirements are applicable across ESS. The Contractor shall:

- 1) Support a configuration controlled end-user environment, which meets the performance requirements as specified. BJC IT intends to enforce a strict “lockdown” policy that does not allow end users to load, unload, reconfigure, modify, and/or change those items, settings that are placed into the “lockdown” configuration. The end users will be allowed the rudimentary capabilities to arrange their desktop icons, create/remove shortcuts, and select from standard wallpaper. The lifecycle management will be performed by **Altiris** with integrated desktop, asset, and server management modules.
- 2) Support all BJC IT provided software and hardware needed to meet the end user computing needs at the desktop level.
- 3) Identify and recommend alternative approaches applicable to the scope of this contract. The approaches may be provided at any time during the contract time frame. These alternatives, however, must be provided with sufficient detail to assess cost, process, and benefit implications to DOE/EM/BJC and cover technical solutions including methods of accomplishment business/technical support process. This also includes desktop technology which emerges during the term of contract and which would appropriately integrate with existing services as a recommendation for implementation.
- 4) Provide BJC IT copies and/or electronic access (as deemed most efficient by the Contractor) to all artifacts created and used by the Contractor to accomplish, monitor and measure the respective Management and Support efforts for the ITMS work.
- 5) Perform and maintain a description of all Management and Support actions necessary to insure the management and support is in good working order across the ESS scope. The areas to be described need not be limited to only those areas listed below and is open to include additional areas as determined to be appropriate by the Contractor.
 - a) Capacity Planning support
 - b) Configuration Management support
 - c) Cyber Security support including virus prevention, detection, quarantine
 - d) Field Services support (including coordination with maintenance services)
 - e) General interactions/communications between the Contractor and other service providers and BJC IT
 - f) Metrics capture for the direct end user PR's
 - g) Helpdesk Management
 - h) Interface with Network Operation service provider
 - i) Physical Security support
 - j) Project Management (application of project management principles to project tasks)
 - j) Desktop Services Deployment Support
 - l) Server Management related to ESS (including machine room operations)

- m) Support Personnel Training/Qualifications and Deployment
- n) Utilization of pooled/common resources used to service DOE/EM/BJC and others

The narrative for each area shall address at a minimum the following topics:

- a) Organizational structures and protocols for interaction between Contractor and BJC IT and end-users.
- b) Procedures, work instructions, tools, standards
- c) Proactive planning actions – plans, schedules, assumptions
- d) Routine operational measurements and monitoring processes
- e) Problem, anomaly, close-to-capacity detection and notification methods/tools and data
- f) Response and resolution methods, tools and data
- g) Metrics and reporting frequency (daily, weekly, and/or monthly) as deemed appropriate

3.2.1.3.2 Standard Desktop Software Service

BJC IT will provide all software. Refer to [Appendix B-2.1 – Software Standards](#) for a listing of the applicable Software standards.

The Contractor shall provide general services to include:

- 1) Requirements Analysis (what business need is the software trying to meet; plus technical support requirements, space, configuration settings)
- 2) Software and patch product acquisition support
- 3) Testing support
- 4) Verification support
- 5) Installation support
- 6) System diagnostics and trouble shooting (what insight is needed to diagnose and resolve problems at the time of installation and during routine operational mode)
- 7) System and component support
- 8) Configuration changes, tracking, and documentation support

3.2.1.3.2.1 Standard Desktop System Software

BJC IT will identify and provide standard software and the Contractor shall provide support services – installation, configuration, troubleshooting services to meet/support the functionality for the following system software:

- 1) operating system
- 2) security software
- 3) appropriate “middleware” communications software
- 4) application services

5) and system management services

Also included is support for software patches to the aforementioned software, which are either modifications to the software or which provide security and bug fixes.

3.2.1.3.2.2 Standard Desktop Office Suite Software

BJC IT will identify and provide standard software and the Contractor shall provide support services – installation, configuration, troubleshooting services to meet/support the functionality for the following software:

- 1) word processing
- 2) spreadsheet
- 3) presentation graphics

3.2.1.3.2.3 Standard Desktop Utility/Productivity Software

BJC IT will identify and provide standard software and the Contractor shall provide support services – installation, configuration, troubleshooting services to meet/support the functionality for the following software:

- 1) graphics/drawing
- 2) project management
- 3) intranet/internet browser/connectivity
- 4) file compression/decompression
- 5) file transfer
- 6) virus detection/protection

3.2.1.3.2.4 Standard Corporate Applications

The Contractor shall provide and support access channels from the desktop for end users to access standard corporate applications.

3.2.1.3.2.5 Software Distribution and Upgrades

This service provides the end user desktop with new versions; service packs, upgrades, modifications, and patches. With BJC IT approval – this service shall be automatic as long as the original software vendor provides the software “change” with no additional charge and there is no impact to end user activities. BJC IT currently “pushes” software updates and changes through Altiris.

The Contractor shall support:

- 1) Distribution of new and upgraded software with the method of installation distribution and schedule in accordance with best business practices.
- 2) Deployment of the BJC IT standard software suite consistently across DOE/EM/BJC to the extent that interoperability issues do not arise as a result of using different versions of software.

- 3) An environment whereby software upgrades are distributed with zero disruption to on-going daily activities and across the entire DOE/EM/BJC desktop population.
- 4) Approved BJC IT software version update releases within 9 months of general commercial availability; security patches within 24 hours of availability from the original software vendor.

3.2.1.3.3 Standard E-mail Service

The Contractor shall support an integrated/comprehensive e-mail service, including support for:

- a) E-mail backbone (including e-mail routing, external e-mail gateway, delivery of mail, Global Address List (GAL) (BJC; DOE-ORO, Selected Contractors; various general Distribution lists) maintenance, e-mail forwarding, and external company contact lists)
- b) Administration and configuration of associated software/hardware
- c) Implementation and configuration
- d) Troubleshooting and problem resolution
- e) Sending
- f) Storing/archival/retrieval
- g) Processing
- h) Receiving e-mail and attachments
- i) Interoperability across DOE/EM/BJC
- j) Compatible with standard office suite
- k) Downloads from Bechtel

The Contractor shall review and provide recommended changes to e-mail management policies and constraints on at least an annual basis. This includes compliance with e-mail policies (e.g., size and filtering constraints currently in place to reduce/prevent – virus infiltration and to manage “large” e-mails due to large distributions and attachments which may be better distributed by some other method).

3.2.1.3.4 Standard Hardware Service

BJC IT will provide “standard/approved” hardware including physical support and maintenance to meet the end user/use performance specifications. The Contractor is not responsible for the provisioning of hardware, but shall provide support – helpdesk and interface with physical maintenance in an overall supportive role.

The Contractor shall provide general services applicable to all standard hardware to include:

- a) Requirements Analysis support
- b) Hardware product acquisition support (technical specification assistance)
- c) Testing support
- d) Verification support
- e) Installation support (not physical installation, but may include technical guidance)
- f) System diagnostics and trouble shooting
- g) System and component maintenance support
- h) Configuration changes, tracking, and documentation

3.2.1.3.5 Standard Data and File Share Service

The Contractor shall:

- 1) Support a shared data and file share service for authorized individuals and/or workgroups. This service includes:
 - a) Establishing file area/ structure and management methods
 - b) Managing access to the area(s) including maintain file services (e.g., specific login scripts needed for accessing the space)
 - c) Storing and retrieving files
 - d) Archival/restore capability including defining a procedure for archiving 'old' information to an alternate location for long-term storage
 - e) Managing file space and allocation
 - f) Supporting security-requested sanitization of shared file areas
 - g) Troubleshooting and problem resolution
- 2) Review and provide recommended changes to data and file share management policies and constraints. This includes compliance with BJC IT data and file share policies (e.g., size and access constraints currently in place).

3.2.1.3.6 Standard Printed Output Service

The Contractor shall:

- 1) Manage, measure and monitor the printing service and retain history for the previous month for performance purposes of all print queues.
- 2) Troubleshoot and resolve printer/plotter spooling problems, including the need to reset printer resets or clear queues.

3.2.1.3.7 Standard External Access to Services and Capabilities

The Contractor shall:

- 1) Support a remote connectivity service for portable and non-portable desktop systems located outside of the physical boundaries that allow authorized end users to access the data network from remote locations via a local or toll-free call.
- 2) Provide for the identification and authentication of the end user and authorized access to approved services (e.g. access to a specific DOE/EM/BJC corporate/business application).
- 3) Support functionality equivalent to a local, direct network connection while the end user is at a remote location (e.g., on travel or at home). Since the user of this service will have the same access to internal resources (e.g., mail or internal use only WWW resources), the service must be delivered in compliance with DOE/EM/BJC Cyber Security requirements per the Cyber Security Program Plan (CSPP).
- 4) Support home or on travel DOE/EM/BJC users connecting to the Internet and accessing either sensitive or non-sensitive DOE/EM/BJC information. All sensitive information

must be accessed utilizing a virtual private network (VPN), while non-sensitive information can be accessed utilizing Thin Client Citrix or https. Home users that already have Internet Service Provider (ISP) account only need to have the use of a VPN or Citrix/NFUSE client or access via https.

- 5) Restore service when an outage occurs within 4 hours unless deemed critical by BJC IT.

3.2.1.3.8 Standard Request Support Service

See [Appendix B-2.1 – BJC Software Standards](#)

3.2.1.3.8.1 End User Support

The Contractor shall:

- 1) Provide integrated customer support and end user assistance for resolving computing support requests – either problems and/or assistance issues. Services shall include contact, resolution, management and tracking services including, as appropriate, desk-side field support on an individual basis.
- 2) Define and implement a problem management and resolution process to insure appropriate and timely problem response and escalation as follows:
 - a) Identify, isolate, track, report, and resolve end user requests, hardware and software problems. Provide a means for submitting and receiving technical assistance
 - b) Minimize the amount of time it takes for a customer reported problem to be channeled to the appropriate representative
 - c) Route actions to the appropriate service provider within 30 minutes of acknowledgement receipt of the request 95% of the time
 - d) Track problems from initial request to problem resolution
 - e) Notify users of problem status and resolution
 - f) Provide end user documentation for provided services
 - g) Provide consultation services for all software packages. For purposes of this requirement, consultation services include assisting customers in the correct usage of the software, but do not include application development.
- 3) Provide the full compliment of End User Help services for tasks covered herein during the hours of 7:00am – 5:00pm Monday – Friday, Eastern Time, excluding Bechtel Jacobs Company holidays. These will be referred to as “normal Help hours” (or “normal business hours”). For other than normal business hours, the Contractor shall provide services to capture requests and provide routing and escalation protocols for responses.
- 4) Provide a single point of contact for all users available 24 hours a day/7 days a week

- 5) Provide a minimum of 4 work hours of advanced notice for scheduled outages and at issue an outage notice at least 30 minutes of an unexpected outage.
- 6) Maintain current web based how-to procedures
- 7) Provide Help services to personnel authorized by BJC IT organization as follows:
 - a) Provide **full service** to BJC employees, DOE and authorized Contractors at all sites. Help services consist of advanced expertise to resolve more technical or specialized user problems. System status information and some immediate assistance shall also be provided. Full services shall cover:
 - Server Services
 - Database Services
 - Web Server Services
 - E-mail Server services
 - File Services
 - Print Services
 - Desktop Services
 - Computer Access/Account services
 - Network Services
 - Software support – operation and use assistance
 - Cyber Security services
 - b) Provide **limited/modified services** (e.g., VPN, UID and access, privileges, connectivity support) to non-employees. For example: Contractors, visitors or other groups may require connections or ports to the DOE/EM/BJC network. Also, DOE visitors or employees may need a domain and e-mail account for use when working on site but not require hardware. Limited services shall cover:
 - Access support
 - Connectivity support
- 8) Provide full desktop support for the products listed in Primary Support and Limited Support sections of [Appendix B-2.1 – BJC Software Standards](#)

This support includes:

 - a) Troubleshooting and problem resolution
 - b) Migration assistance, installations, and re-installations
 - c) Maintenance of computing information for existing systems and products delivered, including how-to information and tips on software usage (e.g. FAQ, user guides) as well as software installation and configuration for use by DOE/EM/BJC authorized personnel.
 - d) Field support for software version upgrades, new implementations and major upgrades to business applications will be supported through Altiris.

- 9) Provide, as needed, notifications and messages to DOE/EM/BJC authorized personnel in accordance with BJC IT provided information release guidelines (e.g., power outages, server outages, and significant events that may affect end user work.)
- 10) Provide DOE/EM/BJC Oak Ridge (BJCOAKRIDGE domain) public file space reconfiguration and upgrades, software deployment support and management.
- 11) Provide support for security-requested sanitization and other security measures for desktops.

3.2.1.3.8.2 Telecommuters, Travelers, and Off-site Personnel

The Contractor shall:

- 1) Assist in troubleshooting for DOE/EM/BJC computers used by telecommuters, travelers, and other off-site personnel.
- 2) Not be required to provide physical services at the remote location.

3.2.1.3.9 Standard Resources Delivery

3.2.1.3.9.1 User Identifier (UID) and Password Selection/Distribution

The Contractor shall:

- 1) Provide computing UID, password, and computing resource authorizations support. The Contractor shall use the currently in-place application (UCAMS).
- 2) Process requests and make available UID and associated accounts within a maximum of 4 business hours after a BJC Authorized Approved Request (BAAR), Monday through Friday, excluding holidays and weekends.

3.2.1.3.9.2 Base Access/Accounts (E-mail, BJC Domain, Networked Storage/File Space)

The Contractor shall:

- 1) Provide DOE/EM/BJC account support for the BJC OAKRIDGE domain IT for managed and secure networking, file sharing, and e-mail access.
- 2) Process firewall exceptions with BJC IT approval on a case-by-case basis for users needing valid external access.

3.2.1.3.9.3 Physical Assets

This section is included for completeness regarding the DOE/EM/BJC end user desktop environment. The Contractor is **not** responsible for the provisioning of hardware, but shall provide support – helpdesk and interface with physical maintenance - in an overall supportive role.

BJC IT will:

- 1) Provide the services to insure desktop assets are physically delivered to support the end user/use requirements.
- 2) Define, perform, and maintain records to insure that all the following occur:
 - a) Approved software and hardware are identified, in-place and properly configured
 - b) Connectivity requirements are met
 - c) Testing for interoperability is performed (and asset passes)
 - d) Assets are delivered either on time or early to the correct location
 - e) Location specific installation actions are performed
 - f) Appropriate registration (e.g., to the network, and in any seat/individual user tracking database) is captured and properly entered
- 3) Deliver the available asset and have it be “ready for use” within 16 business hours after a BAAR for a physical asset.

3.2.1.3.9.4 Equipment/Software to Accommodate Users with Disabilities/Special Needs

Some authorized DOE/EM/BJC end users (estimated at 12) are currently provided unique systems in support of their individual needs and in accordance with the Americans with Disabilities Act, e.g., special mouse, keyboard, or voice-activated software.

The Contractor shall:

- 1) Continue support for existing systems and future systems as needed.
- 2) Identify products as they become available that offer improvements in technology, which better suit the needs of users with disabilities.

3.2.1.3.9.5 Mobile “Loaner” Units

This section is included for completeness regarding the DOE/EM/BJC end user desktop environment. The Contractor is not responsible for the provisioning of hardware, but shall provide support (i.e., helpdesk and interface with physical maintenance in an overall supportive role.)

BJC IT will review and authorize use of “loaner” mobile units by personnel needing the mobile capabilities for short duration special case needs (i.e., employee travel and special projects.) Loans are generally for no more than ten (10) workdays.

BJC IT will:

- 1) Provide a loaner mobile management service, including a standard mobile unit with any approved additions
- 2) Make the loaner available to the end user no later than close-of-business on the next business day. This includes providing delivery of the loaner to the user’s office, if requested. In BJC IT priority approved cases, delivery shall be within 2 hours.
- 3) Provide basic installation of any special software requested by the end user and approved by BJC IT for use with the loaner on a temporary basis

- 4) Restore the disk drive, after use of the loaner, to the standard mobile seat configuration
 - 5) Provide the following services for the mobile loaner:
 - a) Maintain DOE/EM/BJC standard software load
 - b) Maintain any BJC IT approved organization/task-specific software configurations, including software in addition to the standard load
 - c) Battery recharge and/or exchange
 - d) A carrying case and spare battery
 - e) Remote access setup and guidance including required remote access scripts for individual users
 - f) Data transfer support (moving data from a server to the laptop or vice versa)
 - g) Remove user specific data from laptop
 - h) Provide user training as needed when the laptop is picked up by the user
- 3.2.1.4 Performance Requirements

The Contractor shall determine how best to deliver the requested services.

The following are ESS Performance Requirements (PR):

- 1) The General ESS Environment shall:
 - a) Be highly available such that unless otherwise specified, all resources are to be available as follows: 99.9% availability to end user in prime time (7 am to 5 pm M-F EST) and 99.5% in non-prime time. This will be monitored by Resource Availability Reports.
 - b) Be virus free such that at:
 - Level 1: There is “No Fault” considered, as long as the most current patch/fix from the Virus Management software vendor has been implemented, but is ineffective. Current virus management is provided through ePolicy Orchestrator.
 - Level 2 (propagation management): Viruses are contained and senior BJC IT Management is contacted in less than 1 hour from first instance detected (monitored by Virus Detection/Resolution reports.)
 - c) Provide Management and Support information - copies and/or have electronic access (as deemed most efficient by the Contractor) to all artifacts created and used by the Contractor to accomplish, monitor and measure the respective Management and Support efforts for the ESS work. This communication shall support open communications with list of artifacts available to be provided by Contractor; provided on time (daily, weekly, and monthly) and per mechanism(s) (paper, e-mail, other electronic) as mutually agreed.
- 2) The Standard Desktop Software Support Service including Operating System, Office Suite , Utility/Productivity Software, Corporate Applications (access paths on the desktop), and Standard Electronic Mail Service shall be configured to standards such that all instances are installed and properly configured 99.99% of the time. This will be monitored by confirmation of the image version at time of end user set-up and reconfirmed at the end user desktop as part of each problem resolution close-out.

- 3) The Standard Software Distribution and Upgrades service shall:
 - a) Provide support for deployment of software such that software upgrades are distributed with no disruption to on-going daily activities and across the entire DOE/EM/BJC end user population within a 2 work-day window. This will be monitored per deployment confirmation feedback.
 - b) Provide the capability to support software version update releases within 9 months of general commercial availability; security patches within 24 hours of availability from the software vendor upon approval of BJC IT.
- 4) The Standard Electronic Mail Service shall:
 - a) Be capable of supporting back-up retention for up to 3 months. This will be monitored by reviewing the Retention Process Description and Operations logs verification.
 - b) Be capable of sufficient storage capacity for 400 MB of E-mail Storage (minimal average) per user. This will be monitored by Disk Utilization and Capacity Projections reports.
- 5) The Standard Data/File Storage Service shall:
 - a) Be capable of sufficient storage capacity for 1 GB average minimum limit per user for personal storage with up to an additional 1 GB personal storage per user with BJC IT Authorized –Approved Request (AAR) and no less than 1 TB available for total corporate storage (monitored by Disk Capacity and Utilization reports.)
 - b) Provide operational continuity, data integrity and recovery, and information confidentiality such that recovery is available for Corporate Shared and Personal stored files from files created/modified on the previous day and there is the ability to recover deleted/damaged file/data for up to 1 year with 1 day to recover a file (monitored by Backup Confirmation reports and recovery testing).
- 6) The Standard Printed Output Service shall be responsive to resolution of print queue problems as reported by the end-user. This will be monitored by timeliness of resolution of print queue problems through the helpdesk function.
- 7) The Standard External Access to Services and Functionality support which includes VPN for Contractors and sensitive host use, HTTPS for external access to DOE/EM/BJC intranet, and Server based delivery of Desktop (see software standards, e.g. CITRIX) shall provide access to messaging, files shares and designated business applications from an external source - travel/home such that all services shall be available as follows: 99.9% availability to end user in prime time (7 am to 5 pm M-F EST) and 99.5% in non-prime time (monitored by Resource Availability reports.)
- 8) The Standard Request Service (with closure notification and follow-up) shall:
 - a) Provide quick response with efficient logging and tracking of requests during normal working hours such that the following Service Level Priorities and Performance

Measures are provided during full service hours. Provide a process to enable users to submit requests through direct voice contact and electronically. Response time means that Contractor personnel have initiated work on the request. For priority levels 2-3, problems outstanding (unresolved) after 4 hours shall be escalated for resolution (monitored by Monthly Service Level and Help Desk reports.)

1. Service Level Priorities and Performance Measures for RECEIPT of requests:
 - a. Via Phone: Answer 90% of initial phone requests with a live voice within (60) sixty seconds or less.
 - b. Via Voice Mail: Respond to 100% of Voice mail within (2) two business hours with return call to user.
 - c. Via Fax/E-mail: Respond to 75% of requests received via fax or electronic mail within (4) four normal support hours of request receipt. Respond to 100% of requests received via fax or electronic mail within (8) eight normal support hours of request receipt.
2. Service Level Priorities and Performance Measures for RESPONSE to requests:
 - a. Priority Level 3: Respond within 20 minutes 95% of the time
 - Problem affects large customer base, or
 - Problem/request has a critical deadline, or
 - No alternative method exists to accomplish the task
 - b. Priority Level 2: Respond within 1 hour 90% of the time
 - Problem affects customers but work can continue, or
 - Problem in progress but priority changes due to change in customer time constraints
 - c. Priority Level 1: Respond within 4 hours 90% of the time
 - Problem has little or no impact on continuation of work
 - d. Priority Level 0: Respond within 24 hours 90% of the time
 - Customer would like information when possible
- b) Resolve first-time calls for non-hardware problems within 30 minutes, 90% of the time, with the end user notified of expected time of completion, regardless of help desk tier providing support (monitored by Monthly Service Level and Help Desk reports.)
- c) Provide outage notification as follows:
 1. Advise BJC of planned outages at least 4 hours prior to outage.

2. Advise BJC IT Operations Manager of all non-mandated outages within 30 minutes of detection. Notification of the outage shall indicate the nature of the outage and affected resources/capabilities, and the time the outage was detected. In the same or a subsequent notification, the time the outage ended shall be provided.
 3. After normal operating hours, the BJC IT Management person on-call shall be notified verbally with a follow-up notification issued during normal operating hours.
- 9) The Standard Resource Delivery Service shall:
- a) Provide **User-id, Password** selection/distribution within 4 business hours of receiving BJC IT approval for a UID.
 - b) Provide **Base Accounts** (Domain, E-mail, and Data/File Shares) within 8 business hours after establishment of UID (including permanent password distribution) and BJC IT approval for base accounts.

3.2.2 Server Management Services (SMS)

3.2.2.1 Introduction

The main objective of SMS is to assure that there is a well managed and robust server environment supportive of two server groups:

- servers supporting the desktop and network IT (See [Appendix B-2.2 – SMS IT Servers](#))
- servers hosting DOE/EM/BJC corporate applications (See [Appendix B-2.3 – SMS Applications Servers](#))

3.2.2.2 Current Environment

See [Appendix B-2 Oak Ridge Current Environment](#)

3.2.2.3 Services

3.2.2.3.1 General Services

The following general requirements are applicable across SMS. The Contractor shall:

- 1) Provide interface coordination across all service providers – internal to the Contractor and external to the Contractor – where needed to provide SMS services. Coordinate with customers, Contractors, telecommunications, and bargaining unit personnel in the planning and execution of installation, modification, maintenance, and removal of all equipment located in the computing center.
- 2) Support all software and hardware needed to meet the server support needs.
- 3) Identify and recommend alternative approaches applicable to the SMS scope of this contract. The approaches may be provided at any time during the contract time frame. These alternatives, however, must be provided with sufficient detail to assess cost,

process, and benefit implications to DOE/EM/BJC and cover technical solutions including methods of accomplishment business/technical support process. This includes server technology which emerges during the term of contract and which would appropriately integrate with server management services as a recommendation for implementation.

- 4) Provide BJC IT copies and/or electronic access to (as deemed most efficient by the Contractor) artifacts created and used by the Contractor to accomplish, monitor and measure the respective Management and Support efforts for the ITMS work.
- 5) Perform and maintain a description of Management and Support actions necessary to insure management and support is in good working order across the SMS scope. The areas to be described need not be limited to those areas listed below and may include additional areas as determined appropriate by the Contractor.
 - a) Capacity Planning support
 - b) Configuration Management support
 - c) Cyber Security support including virus prevention, detection, quarantine
 - d) Field Services support (including coordination with maintenance services)
 - e) General interactions/communications between the Contractor and other service providers and BJC IT
 - f) Metrics capture for the direct end user's PR
 - g) Help Desk Management
 - h) Interface with Network Operation service provider
 - i) Physical Security support
 - j) Project Management (application of project management principles to project tasks.)
 - k) Desktop Services Deployment Support
 - l) Server Management related to ESS and ADS (including machine room operations)
 - m) Personnel Training/Qualifications and Deployment Support
 - n) Utilization of pooled/common resources used to service DOE/EM/BJC and others

The narrative for each area shall address at a minimum the following topics:

- a) Organizational structures and protocols for interaction between Contractor, BJC IT and end-users
 - b) Procedures, work instructions, tools, standards
 - c) Proactive planning actions – plans, schedules, assumptions
 - d) Routine operational measurements and monitoring processes
 - e) Problem, anomaly, close-to-capacity detection and notification methods/tools and data
 - f) Response and resolution methods, tools and data
 - g) Metrics and reporting frequency (daily, weekly, and/or monthly) as deemed appropriate
- 6) Perform computer console operations, media management, program control monitoring, production and distribution of printed and electronic output, and facility management oversight limited to the physical areas housing the servers.
- 7) Manage the computing facilities - currently in K-1007 and K-1580 on the ETTP site in Oak Ridge, TN. The routine hours of operations, mode of operations (i.e., lights out remote managed or on-site and staffed with personnel) are at the discretion of the

Contractor. This includes: utility coordination for the machine rooms, machine rooms access controls, and interface with building manager(s).

- 8) Provide help services initial response and first call resolution for server related tasks as follows:
 - a) Normal business hours: 7:00am – 5:00pm Monday – Friday, Eastern Time, excluding Bechtel Jacobs Company holidays and weekends.
 - b) After hours: operational and technical support coverage as requested by DOE/EM/BJC: anytime other than 7:00am – 5:00pm Monday – Friday, Eastern Time, and including Bechtel Jacobs Company holidays and weekends.
- 9) Provide support for server and host computer systems management and administration, including:
 - a) Operating system maintenance
 - b) Subsystem/layered system product support
 - c) Backup and recovery services including alternate storage/processing sites
 - d) System programming
 - e) Troubleshooting and problem resolution
 - f) Configuration management for managed servers
 - g) Technical implementation and administration for system-specific Access Management (i.e., the current Universal Computer Account Management System (UCAMS) software modules or Contractor provided equivalent) to enable automated management and distribution of computer access accounts and passwords for the systems
 - h) Performance analyses and optimization of resource utilization
 - i) Server recovery activities as the need occurs
 - j) Workload information and system performance information on servers
 - k) Routine review, and install as required, hardware and software patches for performance optimization to support customer workload
 - l) Recommendations for computer system consolidations and shutdowns
- 10) Provide server availability at 99.9% during normal business hours and at 99.5% after hours.
- 11) Provide current configuration controlled architectural diagrams/inventories. Capture the changes made in the previous month for managed servers and hosts including the following, as a minimum:
 - a) Server hardware and software loaded including patches/fixes
 - b) Applications hosted
 - c) Processor speed
 - d) Memory

Note: Additional metrics are at the discretion of the Contractor.

- 12) Provide a server capacity assessment and management plan as requested.
- 13) Maintain a back-up monitoring process description and a backup schedule jointly developed with BJC IT.

14) Provide magnetic media library functions in accordance with DOE directives including:

- a) Magnetic media inventory
- b) Recovery and control services
- c) Safeguarding, including coordination of Off-site tape storage at a location acceptable to BJC IT

15) Administer procedures and controls that meet BJC computer security policies and information requirements that are communicated in the BJC IT CSPP.

16) Advise DOE/EM/BJC of server outages:

- a) Planned outages at least 4 hours prior to outage
- b) Non-mandated server outages to the BJC IT Operations Manager within 30 minutes of detection. The Contractor shall determine, with BJC IT concurrence, the best way to accomplish this requirement. Notification of the outage shall indicate the server(s) affected, and the time the outage was detected. In the same or a subsequent notification, the time the outage ended shall be provided. BJC IT will identify specific IT personnel to be notified during normal business hours. After normal operating hours, BJC IT Management person on call shall be notified verbally with a follow-up notification issued during normal business hours. At the beginning of each month, BJC shall provide Contractor a listing of the BJC IT Management people on call for the month.

17) Maintain/Up-date BJC IT Continuity of Operations plan in conjunction with BJC IT, including disaster recovery, contingency, and risk management related to the server environment supporting applications.

3.2.2.3.2 Servers Supporting "Mission Essential" Application(s)

Currently, the Oracle Financials application is the only "Mission Essential" application. The associated servers must be managed in accordance with that designation. The Contractor shall maintain/up-date, and test annually the BJC IT Disaster Recovery Plan for Oracle Financials and associated servers.

3.2.2.3.3 Web Server Services

The Contractor shall:

- 1) Provide web server support for web servers defined in [Appendix B-2.3 – SMS Applications Servers](#)
- 2) Provide server related web support for configuration, patch installation, troubleshooting and problem solving for web services related software: Apache/Stronghold, Netscape Server, IIS, Cold Fusion and Front Page. Doorkeeper, CGI Wrap and SSL keys for servers (see [Appendix B-2.1 – BJC Software Standards](#))
- 3) Provide web server support, for servers, in the areas of administration, configuration, troubleshooting and problem resolution for web services related software: Doorkeeper, CGI Wrap, SSL keys for servers, virtual directories, project/information areas, PERL

coding (for web service not application development), e-mail handlers/servers, PowerBuilder and DLL installs (see [Appendix B-2.1 – BJC Software Standards.](#))

3.2.2.4 Performance Requirements

Following are the SMS Performance Requirements (PR). Contractor shall meet or exceed the following SMS PR's for servers listed in [Appendix B-2.2 – SMS IT Servers](#) and [Appendix B-2.3 – SMS Applications Servers](#).

1) The General SMS Environment shall:

- a) Be available as follows: 99.9% availability to end user in normal business hours (7 am to 5 pm Monday through Friday EST) and 99.5% after hours. This will be monitored by Resource Availability reports.
- b) Be virus free such that at:
 - Level 1 (behind-the-scenes prevention): There is “No Fault” considered, as long as the most current patch/fix from the Virus Management software vendor has been implemented, but is ineffective. Virus updates are currently managed through ePolicy Orchestrator.
 - Level 2 (propagation management): Viruses are contained and senior BJC IT Management is contacted in less than 1 hour from first instance detected (monitored by Virus Detection/Resolution reports.)
- c) Provide Management and Support information - copies and/or have electronic access (as deemed most efficient by the Contractor) to all artifacts created and used by the Contractor to accomplish, monitor and measure the respective Management and Support efforts for the SMS work. This communication shall support open communications with list of artifacts available to be provided by Contractor; provided on time (daily, weekly, and monthly) and per mechanism(s) (paper, e-mail, other electronic) as mutually agreed.

2) The Configuration Control service shall:

Provide current configuration controlled architectural diagrams/inventories. Capture the changes made in the previous month for managed servers and hosts including the following, as a minimum:

- a) Server hardware and software loaded including patches/fixes
- b) Applications hosted
- c) Processor speed
- d) Memory

3) The Back-up Schedule service shall:

Maintain a back-up monitoring process description and a backup schedule jointly developed with the BJC IT.

4) Outage Reporting shall:

- a) Advise BJC of planned outages at least four (4) hours prior to outage
 - b) Advise BJC of all non-mandated server outages to the BJC IT Operations Manager within 30 minutes of detection. Notification of the outage shall indicate the server(s) affected, and the time the outage was detected. In the same or a subsequent notification, the time the outage ended shall be provided.
 - c) After normal operating hours, the BJC IT Management person on call shall be notified verbally with a follow-up notification issued during normal operating hours.
- 5) Continuity of Operations Plan shall:
- Be maintained and up-dated on an annual basis. The plan includes disaster recovery, contingency, and risk management related to the server environment supporting applications.
- 6) Mission Essential Support shall:
- Provide support to servers hosting mission essential applications (currently the Oracle Financials application.) Maintain and up-date the BJC IT Disaster Recovery Plan for Oracle Financials and associated servers as changes occur and test annually.

3.2.3 Application and Database Services (ADS)

3.2.3.1 Introduction

Application Maintenance and Operation Support entails the Stay Alive Maintenance (SAM) of the applications. This support is defined as the functional support and operational support required for the day-to-day production operation of the application to keep it running as intended. This also will include Emergency Fixes required to get an application back into production in a timely manner and Patch Management. "SAM" does not normally require user interface with the support team, other than failure notification or problem reporting by the user, in order to be performed.

As of December 2003 there were one hundred forty six (136) applications in use at DOE/EM/BJC and five (5) applications in development, see [Appendix B-2.4 – DOE/EM/BJC Official Applications Metrics](#). This includes applications owned by DOE/EM/BJC, Bechtel and DOE, shared applications, those internally supported and commercial-off-the-shelf (COTS) packages. Seventy-eight (78) applications require support and are described in [Appendix B-2.5 – BJC ITMS Applications Support](#). Ninety-two (92) applications may require database support, nineteen (19) of which are commercial-off-the-shelf (COTS) packages. These are described in [Appendix B-2.6 DOE/EM/BJC Database Support](#).

Thirteen (13) applications DOE/EM/BJC uses are supported by another contractor and do not require application or database support under this contract. These applications are described in [Appendix B-2.7 BJC Non-ITMS Shared Services](#).

3.2.3.2 Current Environment

See [Appendix B-2 Oak Ridge Current Environment](#)

3.2.3.3 Services

3.2.3.3.1 Application Management

The Contractor shall:

- 1) Provide project management responsibilities, including project planning and tracking interaction with BJC IT, owners, users and other IT subcontractors
- 2) Provide recommendations on process improvements, including architectures and standards, and new technologies applicable to the DOE/EM/BJC scope that would reduce operational costs and/or significantly improve the level of service
- 3) Provide assistance to audit and assessment teams, including those from DOE, PAAA, DNFSB, and OIG, in relation to software applications. Assist response of BJC IT to and resolve audit findings through corrective action

3.2.3.3.2 Application Maintenance and Operation Support

The Contractor shall:

- 1) Provide basic application support for production and development environments for both software and database(s). This includes providing configuration control and disaster recovery as necessary to maintain application productivity.
- 2) Perform application software and database modifications as required to maintain production application availability. Such modifications shall be limited to the following:
 - a) Provide Emergency Fixes (tasks required to get a failed application back into production).
 - b) Provide Environmental Changes (application changes and testing required due to operating system, database or underlying software upgrades).
 - c) Provide Adaptive changes (tasks required to keep an application functioning to its intended purpose). These tasks do not add functionality but are necessary to continue to produce correct results (e.g. regulatory changes, business rule changes, input and output format changes). Also includes work needed to produce task lists, schedules and estimate of cost for requested enhancements.
- 3) Provide Production and Operation Support (support such as, routine running and monitoring of scheduled production jobs, adding, deleting and verifying data as requested, generating queries and reports and adding and deleting user accounts).

- 4) Provide User Support (support such as, answering users questions, consulting with users about possible enhancements, training new users, responding to user problems and consulting with users about business processes as related to specific application)..
- 5) Insure that all applications maintenance and operation support is documented, tested, and installed in accordance with BJC IT procedures and processes and industry standard methodologies, as applicable.
- 6) Monitor and provide on-going cost to keep within approved funding per application.
- 7) Insure that all applications are managed using approved BJC Software Quality Assurance approved plans and follow required Cyber Security regulations as defined by DOE/EM/BJC.
- 8) Maintain configuration control of production applications, databases, data models and other items as appropriate. Use Visual Source Safe (VSS) or other approved configuration management software tool, to track all application source code modifications.

3.2.3.3.3 Application Feasibility Studies

The Contractor shall:

- 1) Perform feasibility studies as specified and approved by the Application and Database Manager and the Software Control Board (SCB). This activity may include labor for information software engineering services with the requisite experience, methods, tools, and technologies for planning, and deploying in a production environment the proposed DOE/EM/BJC application and database.
- 2) Oversee Tasks which may include participating in or leading meetings to define and document requirements, goals and schedule.
- 3) Develop estimate of tasks, costs, and schedules to be presented to the Applications and Database Manager, as applicable. Revise scope of work and costs as required
- 4) Insure work shall be done in compliance with owner and IT project and functional plans and strategies and shall follow applicable industry and de facto/market standards that support information solutions.

3.2.3.3.4 Application Enhancements

The Contractor shall:

- 1) Perform application software and database enhancements as specified and approved by the BJC IT Applications manager and the Software Control Board (SCB). The enhancements shall be performed, documented, tested, and installed in accordance with DOE/EM/BJC procedures and processes and industry standard methodologies, as applicable. Involvement with the owner and BJC IT is required throughout application software lifecycle process.

- 2) Insure that, once implemented, the enhancement becomes part of the on-going application maintenance and operation production environment and costs will be part of the ongoing maintenance of the application. Enhancements are usually adding functionality to existing applications but may include developing a new application.
- 3) Monitor and provide on-going cost of enhancement to keep within approved funding. The Applications and Database Manager shall be notified in a proactive manner of any anticipated variance from approved cost estimate.
- 4) Insure that each enhancement is managed using approved BJC Software Quality Assurance approved plans and that it follows required applicable Cyber Security regulations.
- 5) Maintain configuration control of production applications, databases, data models and other items as appropriate. Use Visual Source Safe (VSS) or other approved configuration management software tool, to track all application source code modifications.

3.2.3.3.5 Software License Management

The Contractor shall:

- 1) Assist in management of existing and new software licenses needed for applications, such as Cyborg, Cold Fusion, SAS, C++, SQL-NET as examples.
- 2) Notify BJC Applications and Database manager when additional licenses are required or when renewal of some can be discontinued.
- 3) Assist in developing project cost estimates when it is required to purchase specific software.
- 4) Recommend, as applicable, specific software for use in projects.

3.2.3.3.6 Application Certification/Re-Certification

The Contractor shall:

- 1) Perform application certification and re-certification for production use as specified and approved by the BJC IT Applications and Database Manager and Cyber Security.
- 2) Develop estimate of tasks, costs and schedule for project.
- 3) Monitor and report on-going project costs to assure compliance with approved funding.
- 4) Insure that each project is managed using approved BJC software quality approved plans and that it follows required applicable Cyber Security regulations, as applicable.
- 5) Maintain configuration control of production applications, databases, data models and other items as appropriate. Use Visual Source Safe (VSS) or other approved

configuration management software tool, to track all application source code modifications.

3.2.3.3.7 Database Support

The Contractor shall:

- 1) Provide dedicated database support for production and development environments for all applications on DOE/EM/BJC hardware to insure application availability. This includes support for databases for applications owned by DOE/EM/BJC and other approved applications. Amount of support necessary varies based on the complexity of the application and databases.
- 2) Provide configuration control, backup and disaster recovery as necessary to maintain application productivity.
- 3) Develop proposed operating budget for required work. Monitor on-going cost to keep within approved funding. The Applications and Database manager shall be notified in a proactive manner of any anticipated variance from approved cost estimate.
- 4) Monitor and respond to daily e-mails from backups and proactive monitoring jobs for issues that effect system or application.
- 5) Provide owner and application developers support, such as for SQL-NET and ODBC issues when connecting to specific databases.
- 6) Work in a coordinated effort with system administrators (UNIX, Windows, VMS) and web server administrators, as well as applications developers.
- 7) Answer questions and resolve issues identified by users and application developers, as well as BJC IT, which arrive via direct phone calls, e-mail or Helpdesk.
- 8) Support all database servers, web servers (using Oracle Web Application Server, IIS, Cold Fusion, etc.) and terminal servers.

3.2.3.4 Performance Requirements

Performance requirements are specific to each application. All deliverables must be acceptable to the BJC IT Manager of Applications and the DOE/EM/BJC Functional/Project Manager associated with the application.

3.2.4 Miscellaneous IT Services (MIS)

3.2.4.1 Introduction

The main objective of MIS is the support for various IT services that do not readily fit with the other IT areas. The MIS areas to be supported are:

- Enterprise Engineering and Subject Matter Expert Services
- Assisting BJC IT with Support for DOE

- Company Level Information Management Support
- IT Operations Management support
- Unclassified Cyber Security support
- Telecommunications Services

3.2.4.2 Current Environment

See [Appendix B-2 Oak Ridge Current Environment](#)

3.2.4.3 Services

3.2.4.3.1 Enterprise Engineering and Subject Matter Expert (SME) Services

The Contractor is required to have the capability to acquire SME services as requested and may be requested to provide support services in the following areas:

- 1) Provide technical consulting services in technology areas including:
 - a) Servers
 - b) Databases
 - c) Computer architectures
 - d) Networks
 - e) Network security architecture
 - f) Data archival/retrieval
 - g) and other realms identified by BJC.
- 2) Provide recommendations applicable to the task scope that would reduce operational costs and/or significantly improve the level of service in the following areas:
 - a) IT and process improvements
 - b) Architectures and standards improvements
 - c) New technologies
 - d) and other realms identified by BJC.

3.2.4.3.2 Assist BJC IT with Support for DOE

The Contractor may be requested to:

- 1) On an ad hoc basis, support BJC's role of primary liaison to DOE Headquarters, DOE Information Resources Management Division (IRMD) Oak Ridge Operations (ORO), and the DOE Site Offices (Oak Ridge, Portsmouth, and Paducah).
- 2) Execute planning and procedures, and develop the necessary relationships and protocols needed to successfully perform all activities required by this contract in order to support BJC in the DOE interface role. This component insures that BJC remains in complete compliance with all DOE Orders and Directives pertaining to information technology.

3) Provide support to the following annual requirements:

- a) Self-Assessment Reports
- b) Field Budget Calls
- c) Information Management Project Cost Summary Planning

3.2.4.3.2.1 Support of DOE IT Order Compliance and Requirements

The Contractor may be requested to support the BJC IT organization in understanding, complying, implementing, reporting, and responding to all DOE Orders and Directives, and Executive Orders, and associated requirements that pertain to information technology. Response to DOE requirements will include preparation for external and internal audits of IT systems and processes. The Contractor shall respond in a professional manner to all requirements and in a timely manner to meet BJC or DOE prescribed goals and deadlines.

3.2.4.3.2.2 Preparation for External and Internal Audits

The Contractor may be requested to prepare, coordinate, and support DOE/EM/BJC responses to audit requests (inventory, software compliance, etc.) from:

- 1) DOE Headquarters (HQ)
- 2) DOE Oak Ridge Operations Office (ORO)
- 3) Other DOE site offices (Paducah/Portsmouth)
- 4) DOE Inspector General (IG)
- 5) Office of Management and Budget (OMB)
- 6) Congress
- 7) BJC senior management
- 8) BJC internal audit organization

3.2.4.3.2.3 Support of DOE IT Initiatives and Ad Hoc Requests for Information

DOE initiatives may include, but are not limited to, the following types of impromptu requests for information:

- 1) Requests for information system software/hardware inventories
- 2) Requests for information technology metrics (number and kind of RAM memory, PCs, servers) and associated costs

The Contractor may be requested to:

- 1) Support the BJC IT organization in understanding, complying, implementing, reporting, and responding to all DOE information technology initiatives at an average of one (1) initiative or ad hoc call for information per month.
- 2) Perform this role under the direction of the BJC IT, and keep BJC informed of initiative status and planned responses. Contractor shall submit interim and final work to the BJC IT.
- 3) Respond to initiatives and ad hoc calls for information which may require that the Contractor form and lead response teams and planning meetings, post information on

the internal web, and otherwise distribute vital information to the DOE/EM/BJC personnel.

3.2.4.3.2.4 IT Procurements

BJC IT performs procurements and may request the Contractor to assist as follows:

- 1) Support BJC in obtaining DOE approvals of major IT computing resources. The Contractor may respond to an average of two (2) requests for major procurements per year. Computing resources include, but are not limited to, computer hardware, computer software, and software support services.
- 2) Items that may be required to be provided by the Contractor include, but are not limited to:
 - a) Scope of work statements
 - b) Technical specifications
 - c) Purchase requisition forms and information

3.2.4.3.3 BJC Level Information Management Support

The Contractor shall develop and perform the planning, interfaces, and procedures needed to successfully perform all activities required to manage IT services as outlined by this performance work statement. This scope includes software license compliance, information architecture standards, system reconfiguration and restructuring, data modeling, and independent validation and verification.

3.2.4.3.3.1 Software License Compliance

The Contractor shall:

- 1) Fully support the DOE/EM/BJC in understanding, complying, implementing, inventorying, reporting, and responding to issues related to software compliance.
- 2) Insure BJC is in compliance with all DOE Directives and Orders related to software licensing, and all other applicable directives.
- 3) Maintain and improve procedure(s), with BJC IT approval, to insure that DOE/EM/BJC remains in compliance with all applicable orders and directives. The Contractor shall create and document new procedures as necessary. The Contractor shall establish a process to properly dispose of and/or recycle computer software that is no longer needed for the purpose for which it was acquired, in accordance with all applicable DOE Orders and Directives.

3.2.4.3.3.2 Information Technology Architecture Standards and Guidelines

The Contractor may be requested to:

- 1) Provide as-needed information planning and management tasks that include, but are not limited to:

- a) Facilitating the analysis, simplification, and reengineering of business processes
- b) Performing special technology assessments and providing advice concerning adoption and assimilation of new technologies
- c. Developing special plans and reports, as required
- d. Analyzing and making recommendations on other DOE/EM/BJC information management problems or issues

2) Create:

- a) A model of business processes and interactions
- b) A technical architecture specification
- c) A hardware/network architecture with as-is and future state views
- d) A roadmap of changes and tasks needed to reach future-state objectives

3.2.4.3.3.3 IT Management Strategy Support

The Contractor may be requested to:

- 1) Assist BJC IT in developing long-term technical direction and plans in information management, computing, networking, and telecommunications.
- 2) Provide coordination, direction, and leadership in computing, networking, and telecommunications strategic and tactical planning in support of DOE/EM/BJC's long and short-term business and program goals and objectives. The Contractor shall be responsible for the development of general policies and procedures, IT strategies standards, long and short-term plans and procedures related to the management of computing resources under the direction of BJC IT.
- 3) Provide aid in making assessments of direction and feasibility of plans, directions, estimates, activities, and recommended solutions received from other IT Contractors. The Contractor shall provide the expertise in the appropriate technology area to provide a qualified technical feasibility study report (FSR) as requested by BJC IT.
- 4) Assist BJC IT in making IT decisions based on current technology and trends. The Contractor shall provide technical evaluation, planning, and consulting in all aspects of computing to DOE/EM/BJC. This expertise shall include:
 - a) Desktop computing
 - b) Servers and client applications
 - c) Operating systems
 - d) Virtual private networks (VPN)
 - e) Network firewalls and network security
 - f) Network routers, proxy routers, switches and hubs
 - g) Internet Protocols, IP domains, DNS, etc.
 - h) TCP/IP
 - i) LAN/WAN, Ethernet, Cat5, fiber, ISDN, etc.
 - j) Network storage
 - k) Technical service processes

3.2.4.3.4 IT Operations Management Support

The Contractor may be requested to:

- 1) Troubleshoot as directed by the Operations Manager in situations where standard service has failed.
- 2) Coordinate among other service personnel for large or difficult problem solutions.
- 3) Organize, plan and prepare paperwork for major and minor procurements.
- 4) Serve as the leader in the planning and execution of special initiatives or campaigns as directed by IT management.
- 5) Provide consultation to IT management on possible technical approaches/solutions.
- 6) Provide support in identifying /reducing/deleting User IDs of personnel who have left the company.

3.2.4.3.5 Unclassified Cyber Security Support

The Contractor shall provide Network Security support for the Bechtel Jacobs Oak Ridge network.

3.2.4.3.5.1 General Support

The Contractor shall provide support that is integrated with other general help services provided to the contractor in the following areas:

- 1) Supply intrusion and vulnerability scanning support for the BJC network.
- 2) An individual shall be designated as the primary point of contact with the BJC Computer Security Group (CSG) and shall take direction from the CSG Manager.
- 3) The Subcontractor shall be responsible for intrusion monitoring and detection, incident response for intrusions and denial of service attacks, and vulnerability scanning across 2000 desktop and ancillary devices annually, and 110 servers on a 6 month scanning interval.
- 4) The Subcontractor shall provide the capability of responding to incidents on a 24X7 basis. However, only automated monitoring will be provided after normal work hours. This functionality requires expertise in identifying UNIX and Windows NT vulnerabilities, TCP/IP networking, and management of a Cisco PIX firewall. It also requires the use of Altiris, ISS RealSecure, and ISS Internet Scanner toolset.
- 5) Provide support in accordance with BJC Cyber Security Program Plan, BJC/OR-483/R1, December 17, 2001.
- 6) Provide cyber security support in the areas of program planning, program documentation, and cyber security awareness.

- 7) Respond to cyber security incidents to insure the containment of the incident, identification of the source of any security breaches, protection of government data or information, the sanitization of media, and the security of media and documents.
- 8) Develop and maintain Cyber Security awareness training information.
- 9) Be cognizant of changing Cyber Security requirements, changing threats, DOE orders and directives, technology changes, and keep BJC Cyber Security Management informed of impacts/changes to the BJC Cyber Security program.
- 10) Provide an overall process for the prevention, detection, and remediation of malicious software.
- 11) Disseminate reports from DOE CIAC to the BJC Cyber Security Management team and support personnel.

3.2.4.3.5.2 Subcontractor Cyber Security Oversight Support

The Contractor shall:

- 1) Provide cyber security support for oversight of all BJC Subcontractors who are processing DOE/EM/BJC information.
- 2) Identify and interface with all BJC Subcontractors who are processing DOE/EM/BJC information. The Contractor will work through the individual BJC Subcontractor's Coordinator/Administrator (SC/SA) to establish a cyber security point of contact for each BJC Subcontractor. Once the list of BJC Subcontractor's who are processing DOE/EM/BJC information has been identified, this list will be prioritized to indicate the order for accomplishing these support tasks.
- 3) Evaluate each Subcontractor's compliance with DOE N 205.1 and related directives such as:
 - a) DOE N 205.2 Foreign National Access to DOE Cyber Systems
 - b) DOE N 205.3 Password Generation, Protection, and Use
 - c) DOE G 205.3-1 Password Guide, and
 - d) Other DOE directives pertaining to unclassified cyber security, and the BJC CSPP.
- 4) Use a risk-based approach to work with each Subcontractor who processes sensitive DOE/EM/BJC information to establish a Cyber Security Protection Program (CSPP). The Contractor will present each CSPP to BJC Cyber Security Management for approval. The Contractor will assist the BJC Cyber Security Group with the review of each CSPP. In addition, the Contractor will evaluate and insure the Subcontractor's adherence to their individual CSPPs.
- 5) Serve as an interface between the BJC Cyber Security Group and BJC Subcontractors for self-assessments and awareness issues.
- 6) Collect CSPP's from applicable BJC Subcontractors and provide data indicating the status of all BJC Subcontractors.

3.2.4.3.5.3 Network/Firewall Support

The Contractor shall:

- 1) Perform vulnerability scans and intrusion detection monitoring.
- 2) Insure the DOE/EM/BJC perimeter firewall is configured with interfaces for the DOE/EM/BJC internal networks, the DOE/EM/BJC Data Management Zone (DMZ), and the DOE/EM/BJC VPN server.
- 3) Insure outbound connections allow for connections to be established from the DOE/EM/BJC networks to external entities for only certain protocols.
- 4) Insure inbound connections are denied to the DOE/EM/BJC internal networks by default, but can be allowed with an approved firewall exception.
- 5) Insure external addresses are shunned if BJC Cyber Security deems it appropriate, or if DOE, CIAC or other reliable sources recommend it.
- 6) Distinguish and filter out normal network traffic versus security-related events. Unusual events shall be investigated and may be blocked if they are deemed to be malicious.
- 7) Scan all new network devices as they are introduced to the network. Scan all servers once per quarter and desktop computers twice per year. Insure that vulnerabilities are corrected within the following timeframes based on severity:
 - High vulnerabilities shall be corrected immediately (within 24 hours.)
 - Medium vulnerabilities shall be corrected within one (1) week.
 - Low vulnerabilities may be corrected as time permits.
- 8) Interface with the BJC IT network and engineering provider as required to resolve network issues.

3.2.4.3.6 Telecommunications Services

The Contractor shall provide Communication Security Services support. This includes end user request processing and interface with the DOE telephone provider.

3.2.4.3.6.1 Secure Telephone/Equipment (STU/STE) Management

The Contractor shall:

Provide the Communications Security Services for Secure Telephone Equipment by providing the following support:

- 1) Order and provide training for STU/STE data devices, and associated classified and encrypted equipment such as Crypto-Ignition Keys.
- 2) Connect/disconnect and support operational functionality for STU/STE data devices, and associated classified and encrypted equipment such as Crypto-Ignition Keys.

- 3) Manage equipment inventories and provide quarterly activity reports on STU/STE phones, data devices, cryptographic keys, and keying material; maintain inventory of necessary spare equipment.
- 4) Conduct required classified audits for DOE-HQ.

3.2.5 Operations Management Plan

The Contractor shall prepare an initial Operations Management Plan (OP) for performance of the operation of all ITMS activities and provide to DOE/EM/BJC for review and approval.

This plan shall describe and include all aspects of management, organization, projects/initiatives, operations, facilities, systems, and equipment used in the performance of the Performance Work Statement (PWS) for the remaining life of the support service contract.